# National Cooperative Soil Survey Activities

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Director, Soil Survey Division

West Region NCSS Conference
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# NRCS Personnel Update

- Wayne Maresch
  - Deputy Chief, SSRA
- Paul Benedict
  - Soil Survey Division Program Manager
- Jon Gerken
  - Assistant Soil Survey Program Manager
- Maxine Levin
  - State Department Detail - Rwanda

# NRCS Personnel Update

- Dr. Chris Smith
  National Leader for Technical Soil Services
- Lenore Vasilas
  Technical Soil Specialist (Hydro-Pedologist)
- Dr. Larry West
  National Leader for Soil Research and Lab
- Dr. Cindy Stiles
  Supervisor Soil Survey Lab and
  Research Liaison to MLRA Offices

# Soil Survey Division Priorities

- Continue MLRA Restructure Plans
  - Establish Remaining Offices
  - Staff with Soil Scientists
- Continue Technology Development
  - Enhance Web Soil Survey 2.2
  - Enhance NASIS 6.x
  - Enhance SRITB
- Accelerate Initial Soil Surveys

# Benefits of MLRA Soil Survey

- Â Utilize what we have Learned the Last 100+ Years
- Â Digitally Join Spatial Lines
- Â Fill in Data Gaps and Voids in Tabular Soil Databases
- Â 146 Permanent Geographic Locations
- Â Staffed with GS-12 MLRA Soil Survey Leaders who Know and Understand the Landscapes to Lead “Quality Control”

# MLRA Soil Survey Staffing

## Stability

### 146 MLRA Project Offices

(113 Offices in Place)

[redacted]

- Current = 77%
- Sept 2008 (+9) = 84%
- Sept 2009 (+20) = 98%
- > FY09 (+ 4) =100%

# Soil Survey Restructure

- FY08
  - States continue to establish offices
  - States continue to fill soil scientist positions
- FY09
  - Assess status of Non-Assigned personnel
  - Work with HR and States to meet staffing needs
  - Assist with Redirecting Positions

# NCSS Support

- Agricultural Experiment Stations
- State Land Grant Universities
- 1890 Colleges and Universities
- Tribal Colleges and Universities
- Hispanic Serving Institutions
  - Education and Mentoring
  - Soil Research
  - Participate in NCSS Conferences
  - University Soil Lab Data
  - Support of Soil Survey - Planning & Action

# Examples NCSS Cooperation

- West Region w/NSSC
  - Benchmark Soilscapes
    - Predict Effects of Climate Change
- South and West Regions w/NSSC
  - Gypsiferous Soils
    - Describe, Classify & Interpret
- Northeast Region w/NSSC
  - Subaqueous Soils
    - Describe, Classify & Interpret

# NCSS Research Opportunities

- Digital Soil Mapping
- Decision  Support Systems
- Customer Driven Interpretations
- Soil Quality Measurements
- Dynamic Soil Properties
- Hyper-Spectral Imagery
- Better Ksat Methods

# NCSS
# University Advisory Group

- Toby O'Geen
- Mary Collins
- Joey Shaw
- Mickey Ransom
- Jim Thompson
- Curtis Monger
- Dick Arnold
- Larry Wilding

"We ***Must*** Prepare for Soil Quality, and things that are Green due to Climate Change".

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# NCSS
# Federal Lands Advisory Group

- USFS
- BLM
- FWS
- NPS
- DoD-Army
- NRCS

# NCSS Federal Partner Needs

- USFS
  - Initial 37 M Acres
  - Update 23 M Acres
- BLM
  - Initial 24 M Acres
  - Update 33 M Acres
- FWS
  - Initial 5 M Acres
  - Update 90 M Acres (Mostly AK)
- NPS
  - Initial 60 M Acres

# NCSS Partnership

- Working Together To:
  - Increase capacity to complete Ecological Site Inventories
  - Collect Dynamic Soil Properties to Support State & Transition Models
  - Support Smithsonian Soil Exhibit Opens July 19th

# NCSS Partnership

- Working Together To:
  - Draft Amendment 2 for MOU w/FS
  - Full Time Liaison – NPS (Southard)
  - Part Time Liaison – FS (Tummons)
  - Possible More Liaisons in Future

# NCSS Partnership

- Working Together To:
  - Develop New Soil Interps w/BLM
  - Expand NASIS - House FS Soil Data
  - National Soil Program Reviews - Colorado Included Randy Davis FS

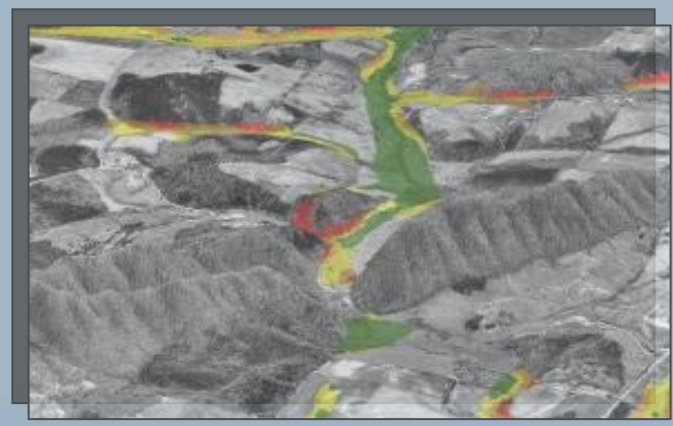
# New Focus Areas

- Promote Technical Soil Services
  - Resource Soil Scientists
  - Regional Technology Centers
    - Central - Ed Griffin
    - West - Terry Aho
    - East - Leander Brown
- Use of Benchmark Landscape Catenas

# Building on Technology

Efficiency

- **Utilize New Technologies**
  - **Complete the Initial**
  - **Accelerate the Update**



- **Deploy Soil Resource Inventory Tool Box (SRITB)**
  - **PEDON PC**
    **Collect Point Data**
    **(Include University Lab Point Data)**
  - **Analysis Tools**
    **Spatial Analysis of point data**
  - **Quality Assurance Tools**
  - **Enhanced Digital Editing Tools in ARCMAP**

# Benefits of The MLRA Soil Survey

- Long Range Plan
  - Â Entire MLRA Soil Survey Area
  - Â Prioritize Projects
- Project Plan
  - Â Identify Activities
- Annual Plan
  - Â Identify Who, What, When

# Benefits of The MLRA Soil Survey

- Spatial Integration to NASIS
  - Combine 3,000 SSURGO Layers
  - “Check Out - Check In” NGDB
- Soil Survey Schedule
  - Goals and Progress Reporting
  - By MLRA Project Plan

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# MLRA Soil Survey "Project Plan"

- Be a Scientist
- Involve NCSS Cooperators
- Utilize NSSC Liaisons
- Will Not "Walk ALL The Land"
- Will Enhance Current Soil Survey
- Clean up/Edit Topology

# Future

- Content Manager
  - Author Text
  - Historical Soil Surveys
  - Historical Papers
  - Research Projects
- Local Lab Standards
  - Standard Lab Procedures – Larry West

# Future

- International
  - MOU's with
    - European Union SS
    - Australians
    - ISRIC (UK)
  - United Nations Commission for Sustainable Development
  - United Nations Convention to Combat Desertification

# Implementing The "New" Soil Survey

**WILL**

- Provide Stability by Establishing Permanent MLRA Soil Survey Offices
- Use New Technologies to enhance our Efficiencies & Knowledge of Landscapes
- Use Web Soil Survey to Deliver our Information to Customers
- These will Prepare us for the:

***"New Frontiers in Soil Survey"***

*Thank You!*

# Building on Technology

Efficiency

- Utilize Digital Elevation Data including LiDAR, IFSAR, National Elevation Data and Remote Sensing information for:
  - Pre-mapping analysis
  - Landscape analysis
  - Digital Soil Mapping
  - Visualization

# Building on Technology

Efficiency

- Utilize Digital Soil Mapping Technology for:
  - Displaying spatial distribution of components
  - Pre-mapping - slope, aspect, geology, etc;
  - Creating soil property maps